

ABSTRACT

Provided is a direct-current converter which can reduce power consumption at light load by reducing switching losses of a main switch. The direct-current converter is provided with: a first serial circuit which is connected to both ends of a direct current power supply V_{dc1} and in which a primary winding P of a transformer T and a main switch Q1 are serially connected to each other; a second serial circuit which is connected both ends of the primary winding P of the transformer T and in which an auxiliary switch Q2 and a snubber capacitor C2 are serially connected to each other; rectifying/smoothing circuits D5, D6, L1 and C5 which rectify and smooth a voltage generated in a secondary winding S of the transformer T by energy supplied from the primary winding P of the transformer T when the main switch Q1 is turned on; and a control circuit 10 which turns on/off the main switch Q1 and the auxiliary switch Q2 alternately using a signal with predetermined switching frequency. The control circuit 10 reduces the switching frequency during light load.